

## **Regional HIV/AIDS Epidemiologic Profile of Western Health Service Region (HSR), Massachusetts: 2015**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2015, this resulted in the removal of 4,401 HIV/AIDS cases, of which 1,021 have died and 3,380 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. The application of the presumed heterosexual risk category to men is overly inclusive in that woman to man HIV transmission is biologically less probable, and there are alternate risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual risk categories for women.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2014: Western HSR, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	2,143	57%
People Reported with HIV or AIDS who are Deceased	1,631	43%
Total Number of People Reported with HIV Infection or AIDS	<b>3,774</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 2. Average annual rate of HIV infection diagnosis from 2011 to 2013 and HIV/AIDS prevalence rate on 12/31/14<sup>1</sup>: Western HSR, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2011–2013</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Western HSR, MA	9.7	80.3
Massachusetts Total	10.7	701.3
<b>HIV/AIDS prevalence rate on 12/31/14</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Western HSR, MA	257.6	2,143
Massachusetts Total	301.5	19,737

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2004–2013, Western HSR, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2004	1,696	56	121
2005	1,744	50	98
2006	1,796	43	95
2007	1,836	42	82
2008	1,872	41	77
2009	1,894	45	67
2010	1,936	34	76
2011	1,983	28	75
2012	2,046	29	92
2013	2,069	27	74

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 4. People diagnosed with HIV infection from 2011–2013<sup>1</sup> and people living with HIV/AIDS on December 31, 2014 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Western HSR, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	173	72%	1,368	64%
Female	68	28%	775	36%
Place of Birth:	N	%	N	%
US	171	71%	1,500	70%
Puerto Rico/US Dependency <sup>3</sup>	43	18%	507	24%
Non-US	27	11%	136	6%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	73	30%	676	32%
Black (non-Hispanic)	60	25%	419	20%
Hispanic/Latino	103	43%	1,015	47%
Asian/Pacific Islander	5	2%	20	1%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	90	37%	581	27%
Injection Drug Use (IDU)	26	11%	562	26%
MSM/IDU	-- <sup>7</sup>	-- <sup>7</sup>	69	3%
Heterosexual Sex	26	11%	375	17%
Other	-- <sup>7</sup>	-- <sup>7</sup>	57	3%
Total Undetermined	94	39%	499	23%
• Presumed Heterosexual Sex <sup>4</sup>	33	14%	189	9%
• Undetermined <sup>5</sup>	61	25%	310	14%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2014	
Under 13	0	0%	2	<1%
13 to 19	7	3%	10	<1%
20 to 24	32	13%	54	3%
25 to 29	31	13%	74	3%
30 to 34	21	9%	110	5%
35 to 39	29	12%	147	7%
40 to 44	33	14%	218	10%
45 to 49	38	16%	338	16%
50 to 54	18	7%	444	21%
55 to 59	17	7%	343	16%
60+	15	6%	403	19%
<b>Total<sup>6</sup></b>	<b>241</b>	<b>100%</b>	<b>2,143</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 5. People living with HIV/AIDS on December 31, 2014 by gender and race/ethnicity: Western HSR, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	502	37%	174	22%
Black (non-Hispanic)	241	18%	178	23%
Hispanic/Latino	603	44%	412	53%
Asian/Pacific Islander	14	1%	6	1%
<b>Total<sup>2</sup></b>	<b>1,368</b>	<b>100%</b>	<b>775</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 6. People living with HIV/AIDS on December 31, 2014 by gender and exposure mode: Western HSR, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	581	42%	N/A	N/A
Injection drug use (IDU)	356	26%	206	27%
MSM/IDU	69	5%	N/A	N/A
Heterosexual sex	82	6%	293	38%
Other	32	2%	25	3%
Total Undetermined	248	18%	251	32%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	189	24%
• Undetermined <sup>3</sup>	248	18%	62	8%
<b>Total</b>	<b>1,368</b>	<b>100%</b>	<b>775</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2004	76	63%	45	37%	121
2005	60	61%	38	39%	98
2006	59	62%	36	38%	95
2007	54	66%	28	34%	82
2008	54	70%	23	30%	77
2009	53	79%	14	21%	67
2010	53	70%	23	30%	76
2011	52	69%	23	31%	75
2012	66	72%	26	28%	92
2013	55	74%	19	26%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2004	28	23%	36	30%	56	46%	121
2005	27	28%	22	22%	45	46%	98
2006	29	31%	14	15%	50	53%	95
2007	26	32%	18	22%	36	44%	82
2008	27	35%	17	22%	30	39%	77
2009	28	42%	13	19%	24	36%	67
2010	30	39%	13	17%	33	43%	76
2011	21	28%	17	23%	33	44%	75
2012	29	32%	28	30%	35	38%	92
2013	23	31%	15	20%	35	47%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2004	72	60%	34	28%	15	12%	121
2005	62	63%	26	27%	10	10%	98
2006	62	65%	23	24%	10	11%	95
2007	56	68%	18	22%	8	10%	82
2008	56	73%	15	19%	6	8%	77
2009	54	81%	8	12%	5	7%	67
2010	58	76%	12	16%	6	8%	76
2011	52	69%	13	17%	10	13%	75
2012	63	68%	19	21%	10	11%	92
2013	56	76%	11	15%	7	9%	74

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of people living with HIV/AIDS in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2004	21	17%	26	21%	-- <sup>5</sup>	-- <sup>5</sup>	26	21%	-- <sup>5</sup>	-- <sup>5</sup>	14	12%	27	22%	<b>121</b>
2005	26	27%	28	29%	-- <sup>5</sup>	-- <sup>5</sup>	14	14%	-- <sup>5</sup>	-- <sup>5</sup>	11	11%	18	18%	<b>98</b>
2006	30	32%	24	25%	-- <sup>5</sup>	-- <sup>5</sup>	11	12%	-- <sup>5</sup>	-- <sup>5</sup>	14	15%	15	16%	<b>95</b>
2007	25	30%	13	16%	-- <sup>5</sup>	-- <sup>5</sup>	11	13%	-- <sup>5</sup>	-- <sup>5</sup>	12	15%	19	23%	<b>82</b>
2008	30	39%	10	13%	0	0%	10	13%	-- <sup>5</sup>	-- <sup>5</sup>	9	12%	17	22%	<b>77</b>
2009	30	45%	6	9%	-- <sup>5</sup>	-- <sup>5</sup>	5	7%	0	0%	-- <sup>5</sup>	-- <sup>5</sup>	22	33%	<b>67</b>
2010	28	37%	12	16%	-- <sup>5</sup>	-- <sup>5</sup>	11	14%	-- <sup>5</sup>	-- <sup>5</sup>	6	8%	17	22%	<b>76</b>
2011	26	35%	12	16%	-- <sup>5</sup>	-- <sup>5</sup>	8	11%	-- <sup>5</sup>	-- <sup>5</sup>	10	13%	18	24%	<b>75</b>
2012	40	43%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	11	12%	-- <sup>5</sup>	-- <sup>5</sup>	15	16%	19	21%	<b>92</b>
2013	24	32%	11	15%	0	0%	7	9%	0	0%	8	11%	24	32%	<b>74</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Western HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2004	40	121	33%
2005	38	98	39%
2006	22	95	23%
2007	30	82	37%
2008	22	77	29%
2009	19	67	28%
2010	27	76	36%
2011	21	75	28%
2012	27	92	29%
2013	12	74	16%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Western HSR, Massachusetts,<sup>1</sup> 2011–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	38	173	22%
Female	22	68	32%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	16	73	22%
Black (non-Hispanic)	21	60	35%
Hispanic/Latino	21	103	20%
Asian/Pacific Islander	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Other/Undetermined <sup>3</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	36	171	21%
Puerto Rico/US Dependencies <sup>4</sup>	13	43	30%
Non-US	11	27	41%
<b>Total</b>	<b>60</b>	<b>241</b>	<b>25%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15